

### **REMARKS**

Reconsideration and allowance in view of the foregoing amendments and the following remarks are respectfully requested. Specifically, favorable consideration of pending Claims 1-77 is respectfully requested.

As a logistical matter, the Applicant respectfully repeats its request that the Attorney Docket Number of this application be corrected to be: MS1-282USC6.

### **THE REJECTIONS UNDER 35 U.S.C. §103(a)**

In the outstanding Office Action:

I. Claims 1-4, 7, 9-12, 15, 17-19, 22, 25, 30, 32, 35, 40, 41, 43-54, 56-58, 69, 73, and 76 were rejected under 35 U.S.C. §103(a) as being unpatentable over Barr, et al. (U.S. Patent 6,189,100; hereafter “Barr”) in view of Arbaugh, (“A Secure and Reliable Bootstrap Architecture, 1996, pp. 1-7; hereafter “Arbaugh) and Angelo (U.S. Patent 5,994,821; hereafter “Angelo”).

II. Claims 5, 13, 33, and 37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Barr in view of Arbaugh and Angelo, for the same reasons as Claims 3, 11, 32, and 35.

III. Claims 6, 8, 14, 16, 21, 23, 24, 39, 42, 55, 59-62, and 71 were rejected under 35 U.S.C. §103(a) as being unpatentable over Barr, Arbaugh, and

Angelo, in view of Sadowsky, et al. (U.S. Patent 6,230,285; hereafter “Sadowsky”).

IV. Claims 63-68, 74, and 77 were rejected under 35 U.S.C. §103(a) as being unpatentable over Barr, Arbaugh, and Angelo, in view of LeBourgeois (U.S. Patent 6,026,166).

V. Claims 27-29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Barr, Arbaugh, and Angelo, in view of Barlow, et al. (U.S. Patent 6,038,551; hereafter “Barlow”).

For at least the reasons that follow, the Applicant respectfully traverses all of the above-listed rejections I through V, and further requests that this rejection also be reconsidered and withdrawn.

#### **THE APPLICANT’S RESPONSE**

The Applicant respectfully submits that the outstanding rejections under 35 U.S.C. §103(a), listed as rejections I) through V) above, fail to establish a *prima facie* case of obviousness, and therefore should be withdrawn.

As set forth in MPEP §§2142 and 2143, a *prima facie* case of obviousness has three basic requirements, including: a) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; b) there must be a reasonable expectation of success; and c)

the prior art references must teach all of the claim limitations. The Applicant respectfully submits that the proposed combination (common to all of rejections I through V) of Barr, Albaugh, and Angelo fail to meet at least one of requirements a) through c), as they pertain to any of the pending claims, and therefore no *prima facie* case of obviousness has been established.

With regard to all of rejections **I through V** (above), the Applicant respectfully submits that at least requirement a) for establishing a *prima facie* case of obviousness has not been met. That is, there is no suggestion or motivation provided by any of the references or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. In short, the context of each of Barr, Albaugh, and Angelo are markedly distinct in quality or character from each other, and therefore one of ordinary skill would not have been motivated to combine them as proposed in the rejections. An overview of the references is as follows.

Barr is directed towards a secure remote process to ensure the integrity of loader applications and boot files downloaded from a boot server to a client computer (Barr, col. 6, lines 16-18). To that end, Barr describes a secured logon operation to validate a client computer to a boot server (Barr, col. 6, lines 34-36), in which a boot server creates a machine account for the client computer (Barr, col. 7, lines 13-15) and then generates and encrypts a password for the machine account, (Barr, col. 7, lines 21-24). The boot server then uses a user's credentials to seal a message holding the encrypted password, and downloads the sealed and encrypted password to the client computer, where the sealed and encrypted password is stored in a secure location on a boot drive (Barr, col. 7, lines 27-33).

Then the boot server transfers a setup loader to the client computer, and after further acknowledgements between the boot server and setup loader on the client computer, the setup loader issues read requests to the boot server to download boot files to the client computer to complete the boot process (Barr, col. 7, lines 34-44).

Arbaugh is directed towards a secure bootstrap process to ensure the integrity of bootstrap code (Arbaugh, pg. 65, sec. 1.1, first paragraph) by hard-wiring into the BIOS a digital signature for each ascending level of a boot process. If Arbaugh was combined with Barr, the secure bootstrap process described by Arbaugh would occur after the setup loader was downloaded from the boot server to the client computer as described by Barr. That is, Barr and Arbaugh are, at best, serial in relation with each other.

Angelo is directed towards protecting against the execution of unauthorized or modified code in real time. Angelo describes three embodiments. The first embodiment relates to a secure hash value being generated for a piece of software when it is installed on a computer system (Angelo, col. 4, lines 45-48), and the second embodiment relates to a secured hash value for a table being maintain in a system management mode memory. Notably, Angelo acknowledges that, “Both of the aforementioned embodiments of the invention have the additional advantage of being operating system independent,” (Angelo, col. 5, lines 17-19). The third embodiment, which is therefore the only embodiment that is contextually relevant to the rejected claims, “builds on a trusted boot facility,” (Angelo, col. 5, lines 25-29) meaning that such embodiment occurs after the operating system is booted.

So, whereas the rejection asserts that one of ordinary skill would have combined the teachings of Barr and Arbaugh to reject pending Claims 1-77, the Applicant respectfully disagrees.

The rejections I through V (above) state that it would have been obvious to calculate the cryptographic hash of the operating system as in Arbaugh as in the system of Barr. The Applicant disagrees with this assertion. Barr does not calculate a cryptographic hash of an operating system. Rather, Barr encrypts a password to authenticate a client computer on a remote boot server, and there is no teaching or suggestion that the password is generated on the basis of an operating system or any other program that may be launched on the client computer.

Furthermore, the rejection states that it would have been obvious to store the result of a computed cryptographic function in the hash table as in Angelo in the system of Barr. The Applicant disagrees with this assertion, as well. The one embodiment described by Angelo that is not operating system independent builds on a trusted boot facility. That is, the embodiment is directed towards secure software registration that occurs after an operating system is booted. The Applicant respectfully submits that one of ordinary skill would have no motivation to combine Barr and Angelo, as proposed, because the processes described by the references are so disparate in nature and timing in relation to the secure booting of an operating system.

Overall, the Applicant respectfully submits that the operating system boot-related processes described by all of Barr, Arbaugh, and Angelo are contextually asynchronous with each other, thus providing one of ordinary skill absolutely no

motivation at all to combine the references as proposed in the rejections. More particularly, the steps and processes described in any one of the references have no bearing or relation to any of the steps or processes in any of the other references.

*Arguendo*, even if Barr, Arbaugh, and Angelo could be combined, the resultant combination would not be obvious because the prior art does not suggest the desirability of the combination due to their contextual disparity, *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990), as discussed in MPEP §2143.01.

MPEP §2142, states in part, “If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.” Therefore, the Applicant, in good faith and belief that a *prima facie* case of obviousness has not been established by any of the above-listed rejections I) through V), requests that all outstanding rejections under 35 U.S.C. §103(a) be reconsidered and withdrawn..

The remaining references of record have been considered, as well. It is respectfully submitted that Sadowsky, LeBourgeois, and Barlow do not compensate for the deficiencies of any of Barr, Arbaugh, and Angelo utilized in rejections III through V, respectively. Thus, the Applicant maintains its traversal of the rejections in view of Sadowsky, LeBourgeois, and Barlow for at least the reasons submitted in the Office Action Response of November 5, 2003.


CONCLUSION

All objections and rejections having been addressed, it is respectfully submitted that the present application is now in condition for allowance. Early and forthright issuance of a Notice of Allowability is respectfully requested.

Respectfully Submitted,

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Dated: Apr'l 29, 2004

  
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